

- (e) putative dehydroquinase dehydratase or fragment thereof;
- (f) shikimate dehydrogenase or fragment thereof;
- (g) shikimate kinase or fragment thereof;
- (h) enolpyruvylshikimate-P-synthase or fragment thereof;
- (i) chorismate synthase or fragment thereof;
- (j) chorismate mutase or fragment thereof;
- (k) tyrosine transaminase or fragment thereof;
- (l) putative tyrosine transaminase or fragment thereof;
- (m) transaminase A or fragment thereof;
- (n) putative transaminase A or fragment thereof;
- (o) homogentisic acid dioxygenase or fragment thereof; and
- (p) geranylgeranylpyrophosphate synthase or fragment thereof.

2. (Amended) The substantially purified nucleic acid molecule according to claim 1, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 100, SEQ ID NO: 147, SEQ ID NO: 153, SEQ ID NO: 158, SEQ ID NO: 161, SEQ ID NO: 180, SEQ ID NO: 184, SEQ ID NO: 199, and SEQ ID NO: 232.

Please add the following claims:

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10. (Added) An isolated nucleic acid molecule comprising a sequence that hybridizes under conditions of 2.0 X sodium chloride/sodium citrate (SSC) at about 65°C to a nucleic acid molecule having a sequence selected from the group consisting of SEQ ID NOS: 1, 100, 147, 153, 158, 161, 180, 184, 199, and 232 and complements thereof.

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(cont)

11. (Added) The isolated nucleic acid molecule, according to claim 10, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 100, SEQ ID NO: 147, SEQ ID NO: 153, SEQ ID NO: 158, SEQ ID NO: 161, SEQ ID NO: 180, SEQ ID NO: 184, SEQ ID NO: 199, and SEQ ID NO: 232.

12. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a maize deoxyarabiono-heptulosonate-P-synthase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:1.

13. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a soybean deoxyarabiono-heptulosonate-P-synthase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:100.

14. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a soybean putative deoxyarabiono-heptulosonate-P-synthase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:147.

15. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a maize dehydroquate synthase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:153.

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16. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a maize putative dehydroquate dehydratase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:158.

17. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a maize shikimate kinase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:161.
18. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a soybean shikimate kinase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:180.
19. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a soybean enolpyruvylshikimate-P-synthase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:184.
20. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a maize chorismate synthase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:199.
21. (Added) The isolated nucleic acid molecule according to claim 10, wherein said nucleic acid molecule encodes a soybean chorismate synthase and said nucleic acid molecule comprises a nucleic acid sequence of SEQ ID NO:232.
22. (Added) An isolated nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 100, SEQ ID NO: 147, SEQ ID NO: 153, SEQ ID NO: 158, SEQ ID NO: 161, SEQ ID NO: 180, SEQ ID NO: 184, SEQ ID NO: 199, and SEQ ID NO: 232.